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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/459,108	12/10/1999	THOMAS F. KNIGHT	7828-012-999	9655
7590	02/18/2004			
DAVIS SALZMAN 4407 ELM STREET CHEVY CHASE, MD 20815			EXAMINER DUONG, KHANH B	
			ART UNIT 2822	PAPER NUMBER

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/459,108

Applicant(s)

KNIGHT ET AL.

Examiner

Khanh Duong

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AW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 86,87,100 and 206-225 is/are pending in the application.
- 4a) Of the above claim(s) 206-225 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 86,87 and 100 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 31, 2003 has been entered.

### ***Response to Preliminary Amendment***

This Office Action is in response to the Amendment filed December 31, 2003.

Accordingly, claim 85 was cancelled, claims 86 and 100 were amended, and new claims 206-225 were added.

Currently, claims 86, 87, 100 and 206-225 are pending in the application.

However, upon further inspection, the newly submitted claims 206-225 are found to be directed to an invention that is independent or distinct from the invention originally elected for the following reasons: they are species claims directed to a method of fabricating an integrated circuit module which requires arranging the first dice so that each of the first dice overlaps at least two to four of the second dice (class 438, subclass 109). Original claims 86, 87 and 100 recites a method of coupling signals between electronic devices in a modular electronic system which do not require such arranging step of claims 206-225 (class 361, subclass 738).

Since applicant has originally elected claims 86, 87 and 100 for prosecution on the merits, claims 206-225 are withdrawn from consideration as being directed to a non-elected

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invention, there being no allowable generic or linking claim. See 37 CFR 1.142(b) and MPEP § 821.03.

Accordingly, claims 86, 87 and 100 are active in the application and an office action on the merits is as follows.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 86, 87 and 100 are rejected under 35 U.S.C. 102(b) as being anticipated by Jacobsen (U.S. 5,673,131).**

Jacobsen, cited in previous Office Action, discloses a method of coupling signals between electronic devices (half-capacitors) in a modular electronic system (see Fig. 9b; col. 7, lines 11-32) comprising the steps of: locating a first subset of electronic devices (half-capacitor) 216 on a first cylindrical-shaped semiconductor chip; locating a second subset of electronic devices (half-capacitor) 214 on a second cylindrical-shaped semiconductor chip; and aligning and affixing the first and second cylindrical-shaped chips so as to capacitively couple the first and second cylindrical-shaped chips; wherein the first and second cylindrical-shaped chips are affixed to a base substrate 210 or 212 thereby capacitively coupling the first and second cylindrical-shaped chips via the substrate. Since the general conditions taught by Jacobsen are the same as those of the claims, it must be inherent that a signal related to the signals applied to the first half-capacitor 216 is received via the second half-capacitor 214.

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Re amended claims 86, 87 and 100, Jacobsen further discloses in Figs. 3-6 that the semiconductor chips can be formed in a variety of shapes having planar/flat surfaces (see col. 5, lines 22-54). Therefore, in light of Fig. 9b, it must be inherent that the first and second subsets of electronic devices (half-capacitors) are co-planar if they are formed on the planar/flat surfaces of the chips shown in Figs. 3-6.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sutherland (US 6,500,696) discloses relevant teachings to the instant invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Duong whose telephone number is (571) 272-1836. The examiner can normally be reached on Monday - Friday (9:00 AM - 6:00 PM).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian, can be reached on (571) 272-1852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



KBD

January 22, 2004



Michael Trinh  
Primary Examiner  
Act SPE  
1/26/04